

**OCCUPATIONAL SAFETY
AND HEALTH STANDARDS BOARD**

2520 Venture Oaks Way, Suite 350
Sacramento, CA 95833
(916) 274-5721
FAX (916) 274-5743
www.dir.ca.gov/oshsb



Attachment No. 2

INITIAL STATEMENT OF REASONS**CALIFORNIA CODE OF REGULATIONS**

**TITLE 8: Chapter 4, Subchapter 7, Article 15, Section 3482 and
Article 109, Sections 5161 and 5178
of the General Industry Safety Orders (GISO)**

Grain Handling Facilities**SUMMARY**

This proposed rulemaking is the result of a Petition (OSHSB File No. 452) to the Occupational Safety and Health Standards Board (Board) from Robert D. Peterson, Law Corporation, on behalf of the California Grain and Feed Association. The Petitioner requested the Board to adopt Federal standards contained in 29 CFR 1910.272, Grain Handling Facilities, and its non-mandatory informational appendices. The Petitioner stated that the purpose in requesting the adoption of the federal standards is to consolidate safety requirements for grain storage and handling facilities, including feed mills, grain elevators, rice mills, rice dryers and grain warehouses into a single standard. Although state standards pertaining to grain handling facilities are contained in various sections throughout the General Industry Safety Orders (GISO), there are no comparable state standards for some federal grain handling standards.

Outdoor grain storage, a practice somewhat unique to California because of climatic conditions, is not addressed in the federal standards. The outdoor grain pile storage method as it is applied in California is similar in effect to flat storage; that is, the grain will not empty by gravity, but must be moved by the use of powered equipment or manual means. Therefore, the Petitioner proposed that federal standards for flat storage structures found in 29 CFR 1910.272(h), "Entry into flat storage structures," should apply to outdoor grain storage piles.

The petition was granted by the Board to the extent that an advisory committee was convened to compare the state's grain handling and storage facility standards with federal counterpart requirements and, if warranted, develop a rulemaking to ensure that the state's standards are up-to-date and at least as effective as those contained in 29 CFR 1910.272.

State standards for grain handling facilities have been compared with federal standards, and where not at least as effective, modifications to existing GISO sections 5161 and 5178 have been proposed. Board staff notes that the federal standard is a vertical (industry-specific) standard and that Title 8 is primarily written as a horizontal standard. Therefore, some federal standards

have state counterparts in other sections of Title 8. The proposed rulemaking only proposes to update portions of sections 5161 and 5178 where there are no state counterpart standards to those presently found in the federal standard.

GISO section 3482, Bulk Storage of Loose Material, addresses flat storage of loose materials such as sand, sawdust, chips, gravel, fuel, seed or similar granular or loose materials within bins, bunkers, hoppers, silos or other structures. As currently adopted, section 3482 has been interpreted to include outdoor grain storage. However, the advisory committee determined that grains are not free flowing (loose) materials and do not present an engulfment hazard as addressed by section 3482.

As part of the review and comparison of state standards for grain handling with the federal grain handling standards contained in 29 CFR 1910.272, the Petitioner has requested that the provisions of 1910.272(h), "Entry into flat storage structures," should be clarified to apply to outdoor grain piles as well. In order to accomplish this, Board staff's proposal includes a note and a few minor modifications to section 3482 to eliminate confusion about its applicability and to direct the public to section 5178 for requirements pertinent to grain handling facilities.

SPECIFIC PURPOSE AND FACTUAL BASIS OF PROPOSED ACTION

Section 3482. Bulk Storage of Loose Material.

This section prescribes work practices, construction and equipment for bulk storage of loose material where the hazard of engulfment/entrapment exists by virtue of the flow characteristics of the stored material. Board staff, with the assistance of the advisory committee, determined that grains are not free flowing (loose) materials and thus do not present an engulfment hazard as addressed by section 3482. Therefore, a note is proposed for subsection 3482(a) that work in grain handling facilities shall be in accordance with the provisions of section 5178, Grain Handling Facilities. References to grain in subsections (c)(1) and (e) are also proposed to be deleted.

This proposed note and deletions of references to grain are necessary to clarify that section 3482 is not intended to apply to grain handling facilities and to direct the regulated public to section 5178 for standards for grain handling facilities.

Section 5161. Definitions.

This section contains definitions for terms used in Article 109, Hazardous Substances and Processes. It is proposed to define "flat storage structure" as "a grain storage building or structure, that is not a confined space as defined by section 5158, that will not empty completely by gravity, and that has an unrestricted ground level opening to permit entry to reclaim grain using powered equipment or manual means. Flat storage structures include flat bottom buildings where grain is stored on the floor or other structures where grain is stored in a pile in bulk on a flat bottom surface." The necessity for this new definition [based on 29 CFR 1910.272(c)] is to clarify the application of section 5178 for flat grain storage structures.

Section 5178. Grain Handling Facilities.

Subsection (a), Scope.

An existing subsection (a), which requires the employer to issue a written authorization before employees enter bins, silos, or tanks is proposed to be relocated to subsection (b). This relocation is necessary in order to clarify the scope of section 5178 by titling, lettering and amending an existing unlettered introductory sentence which describes the scope of section 5178 as follows: “This section and section 5158 applies to all grain handling facilities.”

Modifications are proposed to clarify the scope of section 5178 as follows:

The scope section is proposed to be lettered subsection (a) and entitled “Scope,” in order to assist users in the proper application of this subsection. Four subsections are proposed to clarify the scope of section 5178 as follows:

- (1) The existing unlettered introductory sentence is proposed to be lettered subsection (a)(1) and to be amended to include grain elevators, flat outdoor storage and flat storage structures, feed mills, flour mills, rice mills, dust pelletizing plants, dry corn mills, soybean flaking operations, and the dry grinding operations of soybean. The general cross-reference to section 5158 is proposed to be deleted due to proposed modifications and more specific cross-references elsewhere in the standard.
- (2) A new subsection (a)(2) is proposed to define the term “grain” for the purposes of this section.
- (3) A new subsection (a)(3) is proposed to clarify that this section contains requirements for the control of grain dust fires and explosions, and certain other safety hazards associated with grain handling facilities.
- (4) The existing “exception” to the unlettered introductory sentence is proposed to be modified and designated subsection (a)(4). “On-farm and feedlot facilities” are proposed to be removed from the exception as this exclusion is not found in the federal counterpart and because some California dairy farmers store livestock feed grains outdoors on their farms.

The necessity for these relocations and modifications is to clarify the scope of section 5178 and to substantially conform it to its federal counterpart [29 CFR 1910.272(a) and (b)].

Subsection (b), Entry into grain storage structures.

Subsections (b)(1) and (b)(2).

Existing subsection (a) requires the employer to issue a written authorization before employees enter bins, silos, or tanks, unless the operation is under the supervision of a qualified supervisor. Existing subsection (b) requires atmospheric testing of confined spaces prior to entry. Since both existing subsections (a) and (b) deal with entry into grain storage structures, they are proposed to be included in a new subsection (b) entitled “Entry into grain storage structures.” Subsections (a) and (b) are also proposed to be re-lettered as subsections (b)(1) and (b)(2) respectively.

A clarification for subsection (b)(1) is also proposed. The current verbiage could be interpreted to be limited only to bins, silos or tanks. A modification is proposed to clarify that this provision applies to entry into any confined space in a grain handling facility.

The necessity for these modifications is to simplify application by grouping entry requirements

for grain storage structures of all types into one subsection.

Subsection (b)(3).

This new subsection is proposed to clarify that existing lockout/tagout provisions of GISO section 3314 apply when employees must enter grain storage structures.

California lockout/tagout standards are a horizontal/industry-wide requirement; however the inclusion of a cross-reference here clarifies their applicability to grain handling facilities. This cross-reference is necessary to simplify compliance for affected parties and to substantially conform the California standard to the counterpart federal standard [29 CFR 1910.272(g)(1)(ii)].

Subsection (b)(4).

This new subsection is proposed to prohibit employees from “walking down grain” to make it flow and to prohibit employees from walking or standing on moving grain.

This subsection is verbatim of the federal standard [29 CFR 1910.272(g)(1)(iv) and (h)(2)(ii)], and is necessary to protect employees from engulfment hazards and from being caught in equipment, such as augers, used to move grain into or out of grain structures.

Subsection (b)(5).

This new subsection is existing subsection (h), which has been relocated and clarified to include grain products as well as grain. It would prohibit employees from being underneath a bridging condition, or in any other location where an accumulation of grain or grain products on the sides or elsewhere could fall and engulf the employee.

The necessity for these modifications is to clarify its application to all grain storage structures (not just bins, silos and tanks) and to include engulfment hazards caused by bridging and/or accumulation of grain products as well as grain.

Subsection (b)(6).

This new subsection would require the employer to equip the employee with a Class III body harness with lifeline, or a boatswain’s chair, and would require a second employee to be present when an employee enters a grain storage structure from a level at or above the level of the stored grain or grain products, or when an employee walks or stands on or in stored grain of a depth which poses an engulfment hazard.

A new subsection (b)(6)(A) is proposed to require that the lifeline be positioned, and of sufficient length, to prevent the employee from sinking further than waist-deep in the grain. Exceptions are proposed: (1) Where the employer can demonstrate that the protection required by this subsection is not feasible or creates a greater hazard, the employer shall provide an alternative means of protection to prevent the employee from sinking further than waist-deep in the grain; (2) To permit the lifeline or alternative means to be disconnected or removed when the employee is standing or walking on a surface which the employer demonstrates is free from engulfment hazards. The necessity for this new subsection is to conform California standards to counterpart federal standards [29 CFR 1910.272(g)(2) and (h)(1)].

Subsection (b)(7).

This new subsection would require the employer to provide necessary equipment and qualified personnel for rescue operations. The necessity for this new subsection is to substantially conform California standards to counterpart federal standards [29 CFR 1910.272(g)(4)].

Subsection (c), Hot work.

Existing subsection (c), which prescribes housekeeping requirements for grain elevators, is proposed to be relocated to subsection (d) in order to permit the insertion of a new subsection for hot work.

A new subsection (c) is proposed to be entitled “Hot work.” It would require the employer to issue a permit for all hot work, with two exceptions, consistent with federal standards. The necessity for this new subsection (c) is to substantially conform California standards for hot work at grain handling facilities to counterpart federal standards [29 CFR 1910.272(f)].

Subsection (d), Housekeeping.

Existing subsection (d), which prescribes monitoring requirements for fabric dust filter collectors, is proposed to be relocated to subsection (f)(1) in order to accommodate housekeeping requirements which are being relocated from existing subsection (c).

The new subsection (d) is proposed to be entitled “Housekeeping,” and would contain the housekeeping provisions of existing subsection (c), including the existing exception, and is proposed to be amended with additional provisions found in the federal counterpart standard [29 CFR 1910.272(j)(1) and (j)(3)] which are not presently found in Title 8. The amendments would (1) require the housekeeping program to be in writing, and (2) include federal restrictions on the use of compressed air for dust removal. The necessity for these amendments is to conform California standards for housekeeping to counterpart federal standards [29 CFR 1910.272(j)].

Subsection (e), Grate openings.

Existing subsection (e), which prescribes automatic control requirements for direct-heat grain dryers is proposed to be relocated to subsection (i)(1) in order to accommodate new proposed standards for grate openings.

The new subsection (e) is proposed to be entitled “Grate openings,” and would require grain receiving-pits to be covered by grates. The proposed subsection would also specify the maximum permissible grate opening size. The proposed subsection is verbatim of federal standards [29 CFR 1910.272(k)] and is necessary to protect employees from falling into pits or getting their feet lodged in grates covering pit openings.

Subsection (f), Filter collectors.

Existing subsection (f) which prescribes permissible locations for direct-heat grain dryers is proposed to be relocated to subsection (i)(2) in order to accommodate monitoring requirements for fabric dust filter collectors which are proposed to be relocated from existing subsection (d).

The new subsection (f) is proposed to be entitled “Filter collectors.” Proposed subsection (f)(1) would contain existing pressure drop monitoring requirements for fabric dust filter collectors which are part of a pneumatic dust collection system. These provisions are proposed to be relocated from existing subsection (d).

Proposed subsection (f)(2) would prescribe permissible locations for installation of filter collectors. This subsection is substantially equivalent to existing federal standards. The necessity for these modifications and amendments is to conform California standards to those of counterpart federal standards [29 CFR 1910.272(l)].

Subsection (g), Preventive maintenance.

Existing subsection (g) contains requirements for inside bucket elevators, including operation, maintenance, equipment access, and monitoring. This subsection is proposed to be relocated to a new subsection (j) in order to accommodate a new subsection (g) for preventive maintenance. The new subsection (g) is proposed to be entitled “Preventive maintenance.”

Proposed subsection (g)(1) would require the employer to implement preventive inspection and maintenance procedures, and prescribes the general content of those procedures. Proposed subsection (g)(2) would require the employer to take prompt corrective measures for deficiencies and malfunctions that are discovered. Proposed subsections (g)(1) and (g)(2) are verbatim of existing federal standards [29 CFR 1910.272(m)(1) and (m)(2)].

Proposed subsection (g)(3) states that lockout/tagout procedures shall be implemented in accordance with GISO section 3314, and is substantially equivalent to existing federal standards [29 CFR 1910.272(m)(4)]. The necessity for new subsection (g) is to conform California standards to counterpart federal standards [29 CFR 1910.272(m)].

Subsection (h), Grain stream processing equipment.

Existing subsection (h) prohibits employees from entering bins, silos, or tanks underneath a bridging condition, or where a buildup of grain products on the sides could fall and bury them. This existing subsection is proposed to be relocated to subsection (b)(5).

A new subsection (h) is proposed to be entitled “Grain stream processing equipment” and it would require grain stream processing equipment to be equipped with an effective means of removing ferrous materials from the incoming grain stream. The necessity for this new subsection (h) is to conform California standards to counterpart federal standards [29 CFR 1910.272(n)].

Subsection (i), Continuous-flow bulk grain dryers.

Existing subsection (i) requires documentation of inspections and maintenance performed on grain handling machinery and equipment. The existing subsection (i) is proposed to be relocated to new subsection (k) in order to accommodate provisions for continuous-flow bulk grain dryers, which are being combined and relocated from existing subsections (e) and (f).

The new subsection (i) is proposed to be entitled “Continuous-flow bulk grain dryers.” New subsection (i)(1) would contain existing automatic control requirements for direct-heat grain dryers which are proposed to be relocated from existing subsection (e). New subsection (i)(2) would contain existing provisions proposed to be relocated from existing subsection (f) which prescribes permissible locations for direct-heat grain dryers. These proposed relocations would have no regulatory effect and are only proposed in order to accommodate other provisions which are being inserted to conform California standards to counterpart federal standards.

Subsection (j), Inside bucket elevators (bucket elevators).

This is a new subsection created to incorporate existing provisions for inside bucket elevators which are currently contained in existing subsection (g). The title of new subsection (j), “Inside bucket elevators (bucket elevators),” is proposed to be the same as existing subsection (g). No substantive changes are proposed to the existing text. These proposed relocations would have no regulatory effect and are only proposed in order to accommodate other provisions which are being inserted to conform California standards to counterpart federal standards.

Subsection (k), Record keeping.

This new subsection is proposed to be entitled “Record keeping” and to incorporate the existing provisions of subsection (i) which requires documentation of inspections and maintenance performed on grain handling machinery and equipment. The existing requirements of subsection (i) have been amended to include documentation of preventive maintenance required by subsection 5178(g). The necessity for this amendment is to substantially conform to the federal counterpart [29 CFR 1910.272(m)(3)] and to assure that preventive maintenance is performed and documented, thus improving workplace safety.

Subsection (l), Contractors.

This new subsection is proposed to require the employer to inform contractors performing work at the grain handling facility of (1) known potential fire and explosion hazards related to the contractor's work and work area, (2) applicable safety rules of the facility, and (3) applicable provisions of the emergency action plan. The necessity for this amendment is to conform California standards to counterpart federal standards [29 CFR 1910.272(i)].

Subsection (m), Emergency escape.

This new subsection is proposed to require the employer to provide means of escape from galleries (bin decks) and from tunnels in grain elevators. The necessity for this amendment is to conform California standards to counterpart federal standards [29 CFR 1910.272(o)].

Subsection (n), Training.

This new subsection is proposed to prescribe training specific for grain handling facilities. The proposed subsection would also cross-reference section 3203 for general industry training requirements. The necessity for this amendment is to substantially conform California standards to counterpart federal standards [29 CFR 1910.272(e)].

Subsection (o), Emergency action plan.

This new subsection is proposed to direct the employer to existing general industry requirements for an emergency action plan which are found in section 3220. The necessity for this amendment is to substantially conform California standards to counterpart federal standards [29 CFR 1910.272(d)].

DOCUMENTS RELIED UPON

None.

REASONABLE ALTERNATIVES THAT WOULD LESSEN ADVERSE ECONOMIC
IMPACT ON SMALL BUSINESSES

No reasonable alternatives were identified by the Board and no reasonable alternatives identified by the Board or otherwise brought to its attention would lessen the impact on small businesses.

SPECIFIC TECHNOLOGY OR EQUIPMENT

This proposal will not mandate the use of specific technologies or equipment.

COST ESTIMATES OF PROPOSED ACTION

Costs or Savings to State Agencies

No costs or savings to state agencies will result as a consequence of the proposed action.

Impact on Housing Costs

The Board has made an initial determination that this proposal will not significantly affect housing costs.

Impact on Businesses

The Board has made a determination that this proposal will not result in a significant, statewide adverse economic impact directly affecting businesses, including the ability of California businesses to compete with businesses in other states.

Cost Impact on Private Persons or Businesses

The Board is not aware of any cost impacts that a representative private person or business would necessarily incur in reasonable compliance with the proposed action.

Costs or Savings in Federal Funding to the State

The proposal will not result in costs or savings in federal funding to the state.

Costs or Savings to Local Agencies or School Districts Required to be Reimbursed

No costs to local agencies or school districts are required to be reimbursed. See explanation under “Determination of Mandate.”

Other Nondiscretionary Costs or Savings Imposed on Local Agencies

This proposal does not impose nondiscretionary costs or savings on local agencies.

DETERMINATION OF MANDATE

The Occupational Safety and Health Standards Board has determined that the proposed standards do not impose a local mandate. Therefore, reimbursement by the state is not required pursuant to Part 7 (commencing with Section 17500) of Division 4 of the Government Code because the proposed amendments will not require local agencies or school districts to incur additional costs in complying with the proposal. Furthermore, these standards do not constitute a “new program or higher level of service of an existing program within the meaning of Section 6 of Article XIII B of the California Constitution.”

The California Supreme Court has established that a “program” within the meaning of Section 6 of Article XIII B of the California Constitution is one which carries out the governmental function of providing services to the public, or which, to implement a state policy, imposes unique requirements on local governments and does not apply generally to all residents and entities in the state. (County of Los Angeles v. State of California (1987) 43 Cal.3d 46.)

The proposed standards do not require local agencies to carry out the governmental function of providing services to the public. Rather, the standards require local agencies to take certain steps to ensure the safety and health of their own employees only. Moreover, the proposed standards do not in any way require local agencies to administer the California Occupational Safety and Health program. (See City of Anaheim v. State of California (1987) 189 Cal.App.3d 1478.)

These proposed standards do not impose unique requirements on local governments. All state, local and private employers will be required to comply with the prescribed standards.

EFFECT ON SMALL BUSINESSES

The Board has determined that the proposed amendments may affect small businesses; however, no economic impact is anticipated.

ASSESSMENT

The adoption of the proposed amendments to these standards will neither create nor eliminate jobs in the State of California nor result in the elimination of existing businesses or create or expand businesses in the State of California.

ALTERNATIVES THAT WOULD AFFECT PRIVATE PERSONS

No reasonable alternatives have been identified by the Board or have otherwise been identified and brought to its attention that would be more effective in carrying out the purpose for which the action is proposed or would be as effective and less burdensome to affected private persons than the proposed action.